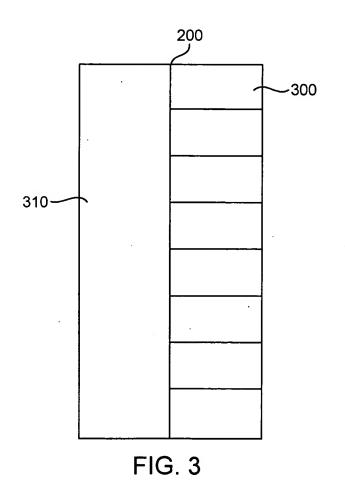


FIG. 1



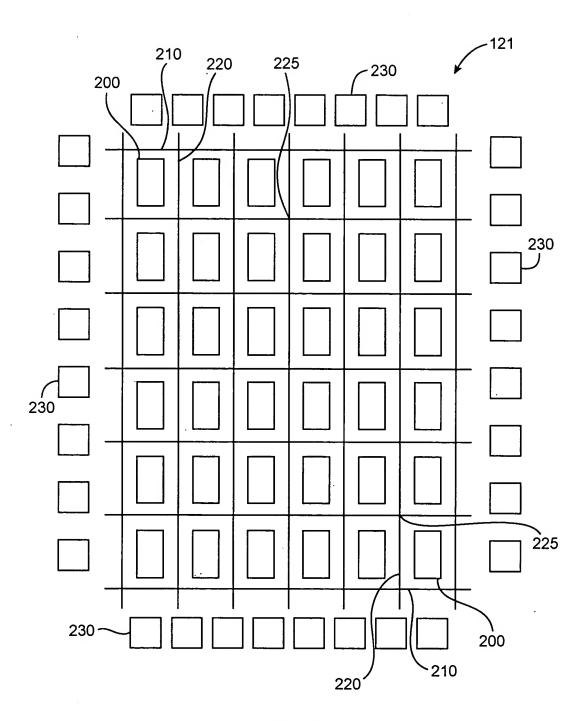


FIG. 2

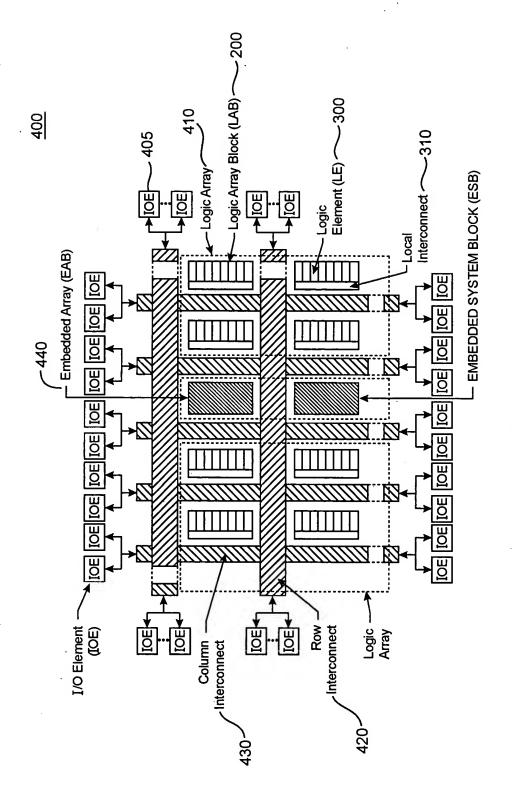


FIG. 4

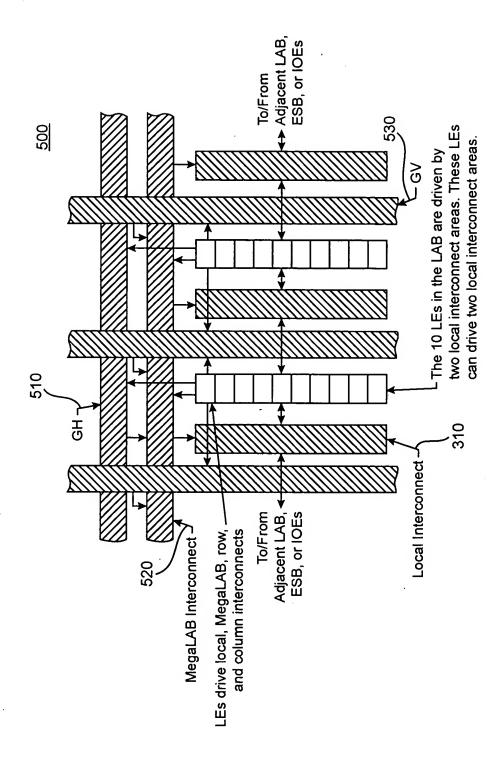


FIG. 5

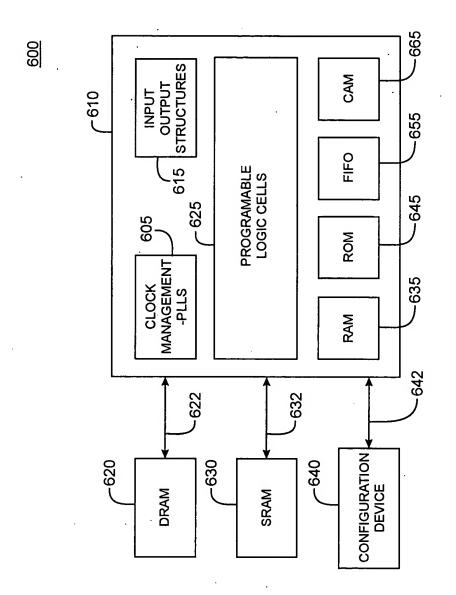
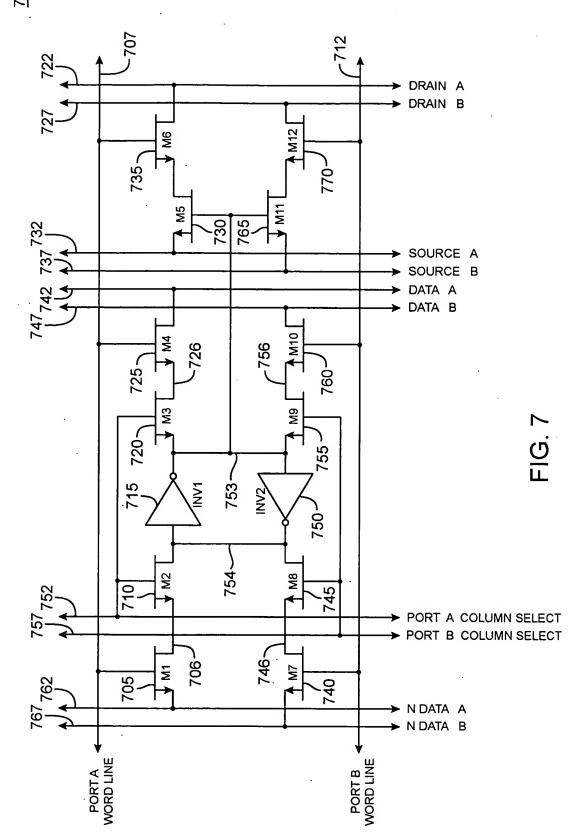


FIG. 6



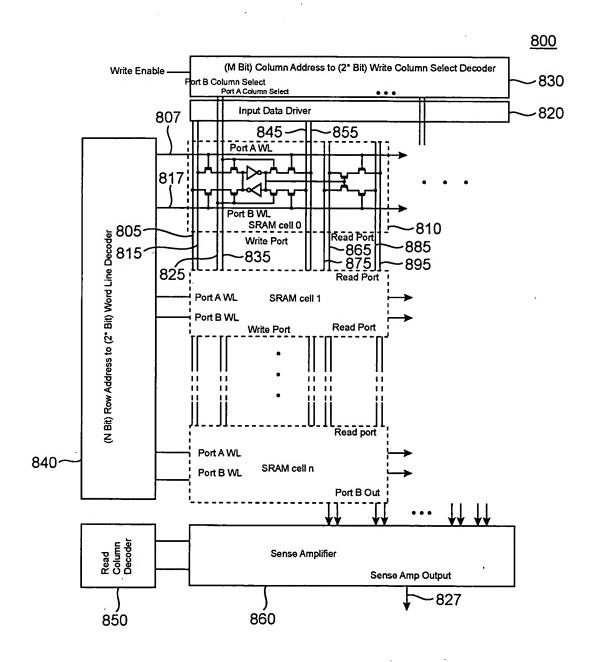


FIG. 8

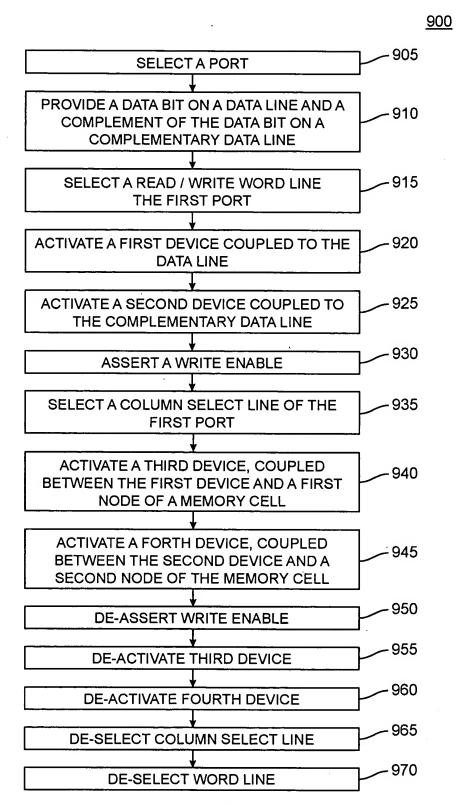


FIG. 9

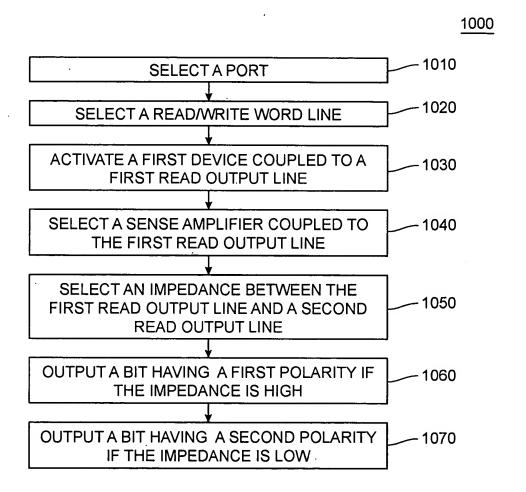
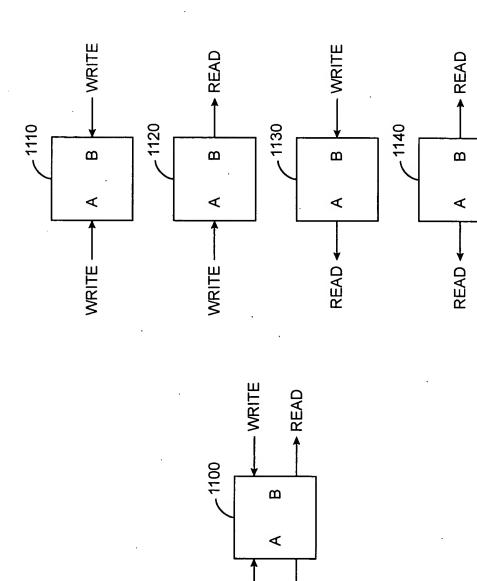


FIG. 10

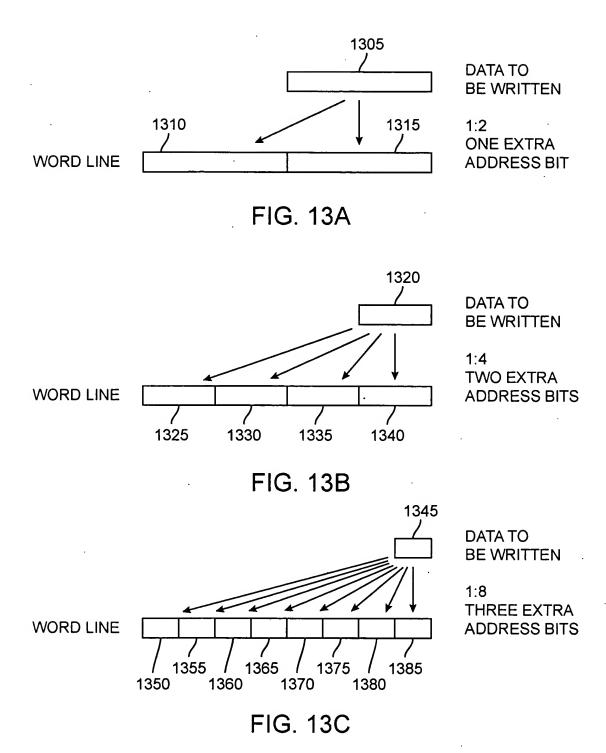


READ •

FIG. 11

1200 WRITE A NUMBER OF DATA ENTRIES, EACH DATA ENTRY IN ONE COLUMN, WHERE THE DATA ENTRY IS 1210 WRITTEN TO THE ODD NUMBERED MEMORY CELLS. AND A COMPLEMENT OF THE DATA ENTRY IS WRITTEN TO THE EVEN NUMBERED CELLS IN THE COLUMN PROVIDE A COMPARAND AT THE MEMORY WORD 1220 LINES, THE COMPARAND DRIVING THE EVEN WORD LINES, AND A COMPLEMENT OF THE COMPARAND DRIVING THE ODD WORD LINES 1230 DETERMINE THE PARALLEL IMPEDANCE OF THE READ CELLS IN THE COLUMN FOR EACH COLUMN IN MEMORY, OUTPUTTING A BIT 1240 HAVING A FIRST POLARITY IF THE IMPEDANCE IS HIGH FOR EACH COLUMN IN MEMORY, OUTPUTTING A BIT 1250 HAVING A SECOND POLARITY IF THE IMPEDANCE IS LOW

FIG. 12



1400 1405 PRODUCT TERM =  $A \cdot B \cdot \overline{C}$ 1420 — A "MATCH" OCCURS WHEN A=1, B=1, C=0 **COMPARAND** PRODUCT TERM 1430 **INPUT** STORED IN MEMORY 1440 1420 0 1 Α  $\overline{\mathsf{A}}$ 0 1 0 В 0  $\overline{\mathsf{B}}$ 0 C  $\overline{\mathsf{C}}$ 1 0 HIGH IMPEDANCE AT

FIG. 14

+

SENSE AMPLIFIER INPUT

1450